




ORACLE®



Oracle Applications Integration Architecture

Agile PLM Integration Pack for Oracle E-Business Suite
Best Practices



The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.

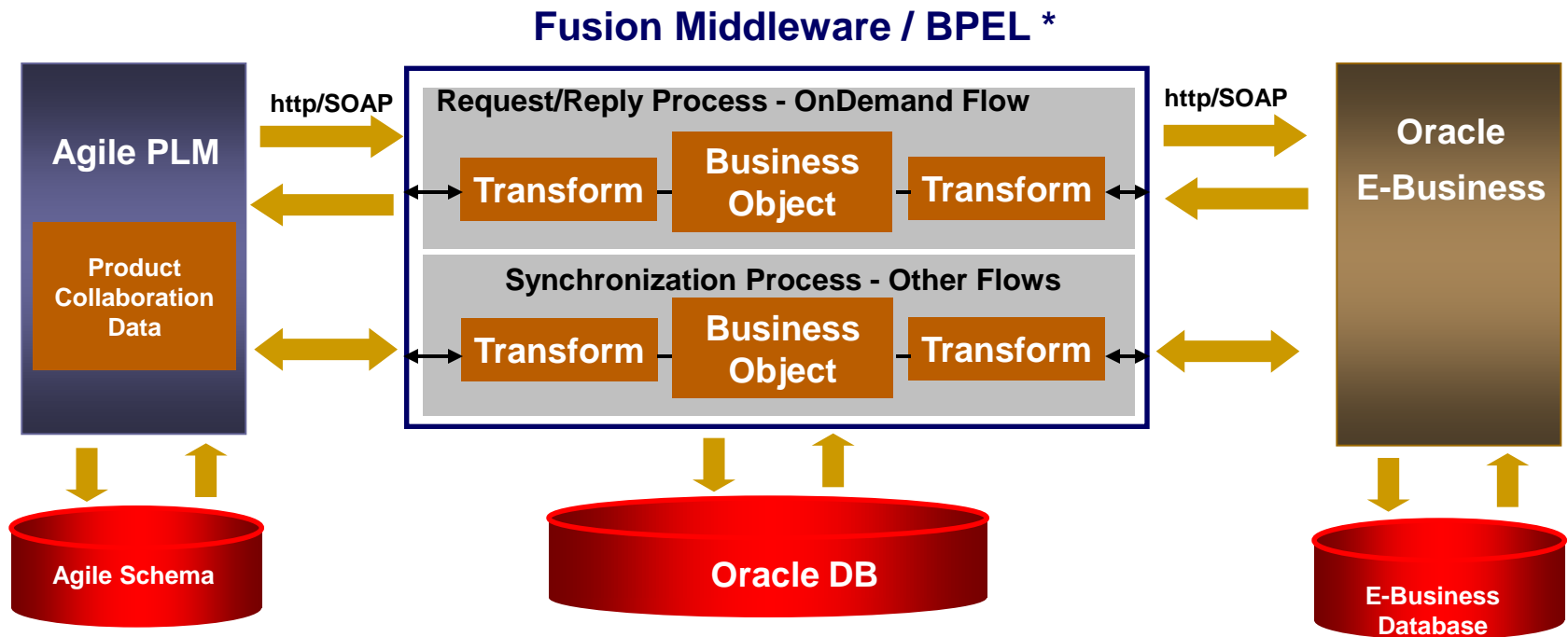
The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Agenda

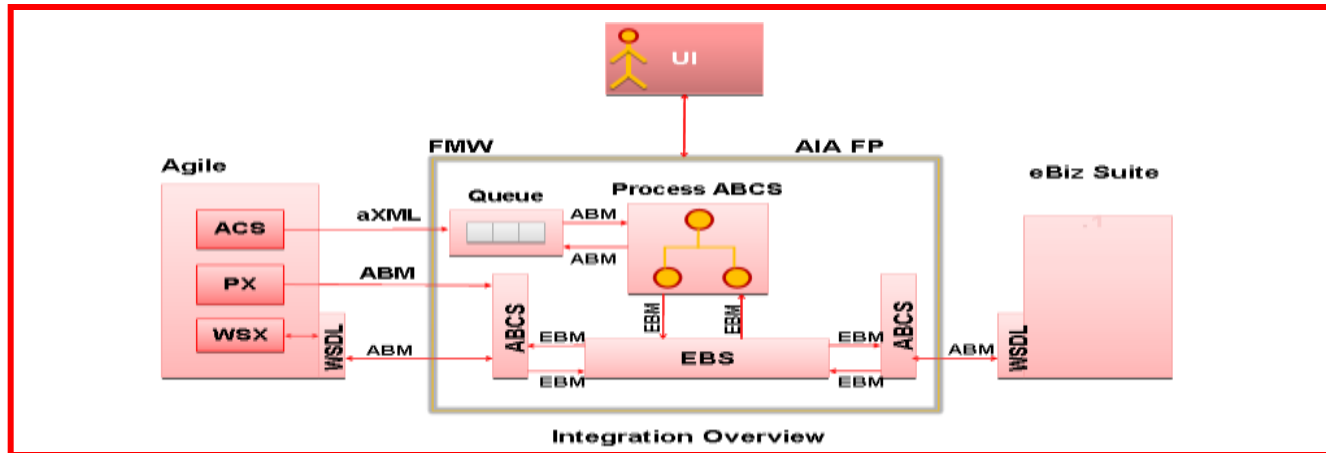
- Process Integration Pack (PIP) Overview
- Solution Components
- Integration Flows
- Overall Considerations
- Best Practices, Assumptions, and Constraints
- Additional Resources

Overview of Process Integration Pack

The Agile Product Lifecycle Management Integration Pack for Oracle E-Business Suite (PLM PIP) enables and integrates Product Development processes across the PLM and ERP solutions namely between Agile and Oracle E-Business Suite. This allows for rapid implementation of Oracle's next Generation integrated enterprise PLM processes helping customer reduce cost and risk associated with typical 3rd Part and custom integrations



Solution Components



Agile Enterprise PLM

- Agile 9.2.2.6, 9.2.2.7, 9.3, 9.3.0.1, 9.3.0.2, and 9.3.1
- VM is not supported for 9.3.0.2
- AIA for PLM enhancements (patch)
- Modules:
 - Product Collaboration
 - PLM Content Service (ACS)
 - Software Development Kit (SDK)
 - Process eXtensions (PX)
 - Web Service Extensions (WSX)

Agile PLM Integration Pack for E-Biz

AIA Foundation Pack Release 2.5

- Oracle SOA Suite Version 10g R3 (10.1.3.4 +MLR#8 or later)
- Oracle Database & Apps Server 10.1.3.4
- Operating Platforms:
 - Linux, Solaris SPARC, HP-UX, IBM AIX Based Systems, & Windows

AIA Foundation Pack Release 3.1

- Oracle SOA Suite Version 11g
- Oracle Database & Apps Server EE 11.2.0.1.0
- Operating Platforms:
 - Linux, Solaris SPARC, HP-UX, IBM AIX Based Systems, & Windows

Oracle E-Business/PIM

- Oracle E-Biz R11.5.10 CU2, R12.1.1, R12.1.2, and R12.1.3
- Oracle PIM R12.1.1, R12.1.2, and R12.1.3
- AIA for PLM enhancements (patch)
- Modules:
 - Discrete Manufacturing (Inventory and PIM, Engineering, and Costing)
 - Oracle Integration Repository
 - Business Event System
 - Oracle Configurator (Variant Management)

Process Integration Flows

Processes Enabled	Overview
1. Process Integration for Item Attribute Update E-Business → Agile PLM	<ul style="list-style-type: none">• Sends via a batch process item attribute information to Agile PLM.
2. Process Integration for Item Balance Update E-Business → Agile PLM	<ul style="list-style-type: none">• Sends via a batch process item balance information to Agile PLM.
3. Process Integration for New Part Request Agile PLM → E-Business	<ul style="list-style-type: none">• Sends the new part requests to E-Business Suite and E-Business Suite sends the part number back to Agile.
4. Process Integration for Item Synchronization Agile PLM → E-Business	<ul style="list-style-type: none">• Sends the new part numbers together with the part attributes to E-Business Suite.
5. Process Integration for Change Order Release Agile PLM → E-Business	<ul style="list-style-type: none">• Sends a change order to E-Business for validation.
6. Process Integration for Change Order Update E-Business → Agile PLM	<ul style="list-style-type: none">• Sends change order information to Agile PLM.

Overall Considerations

- Read and understand the Implementation Guide to better know what is out of the box.
- Read and understand the Extension Recommendations Document to review steps how to extend some of the services.
- PIP relies on how EBS and Agile are implemented and used
- PIP can be very flexible – Do not address Agile and EBS gaps through the PIP

General Best Practices

- PIP supports 1 Agile PLM and 1 E-Business instance
- PIP assumes a single language setting (for example, Agile PLM and Oracle E-Business Suite are in Spanish language).
- Agile PLM is the system of record for product design information.
- Data Synchronization:
 - The two systems must be in-sync with regards to all the attributes that are mapped between the two systems.
 - Attributes that have value sets must be in-sync (i.e. Change Order Priority attribute, Item flexfield attribute value set values, etc).
 - The integration is not a data load tool.
- Changes that cannot be done directly in E-Business, only through Change Orders from Agile PLM:
 - Item Bill of Materials (BOM): Component Sequence Number, Component Number, Quantity, Reference Designators
 - Item Approved Manufacturer List (AML): Manufacturer Name, Manufacturer Part Number, Preferred Status
 - Item Revision

General Best Practices

- Changes that can be made in E-Business without impacting the integration:
 - Changes to other BOM attributes such as operation sequence number, sub inventory, etc.
 - Changes to the Engineering Change Order (ECO) Line effectivity dates
 - Any other attributes not covered in this list
- Multi-Sites
 - Multi-site support is based on Master and Child relationship
 - Child to Master is not allowed
 - Templates based on sites are not supported and requires a customization
- Multi-ECOs
 - If an ECO gets stuck in the queue (due to an error, for example Manufacturer name is not in E-Business), other ECOs can't go through
- Flexfields attributes must be configured and deployed prior to using the integration.

Process Integration for Item Attribute and Item Balance Update – *Best Practices*

- Items must exist in both E-Business and Agile PLM.
- If Item exist in E-Business but not in Agile:
 - The item attribute and item balance update will error out.
 - To avoid error messages, a user exit with a filter routine should be created. An example is to use a flex attribute (like the source system reference in PIM) to indicate the systems with which an item number is shared. This will filter out any items that do not reflect Agile PLM as one of the source systems.
- Single orgs in E-Business:
 - No Agile PLM multisites
 - Attributes updates are sent to the Title Block or Page Two.
- Multi orgs in E-Business:
 - Agile PLM multisites must be configured.
 - A one-to-one mapping between Agile PLM sites and Oracle E-Business Suite organizations exists via the AGILE_TARGET_SITE_MAPPING DVM.
 - Attribute updates are sent to the Site tab of the item in Agile.

Process Integration for New Part Request – *Best Practices*

- Part numbers originate in E-Business or PIM and this process sends the part numbers to Agile.
- Process Extensions (PX) trigger this process but validations specific to each customer might need to be built as part of the PX. Some validations could be:
 1. Ensure that the PX is being called for the right type of part.
 2. Ensure that the user calling the PX has the right privilege to generate a part number in PIM
- Oracle E-Business Suite profile options
 - INV: Default primary unit of measure
 - INV: Default Item Status
- Item catalog category (ICC) must be set up with the necessary item number and generation setup in Oracle E-Business Suite.
- If the item catalog category is set up with New Item Request (NIR), then the item created will be an engineering item and will need to go through the NIR process in Oracle E-Business Suite

Process Integration for Item Synchronization – *Best Practices*

- Similar to New Part Request process but is triggered by the SyncItem PX in Agile and part number generation occurs first in Agile
- A process extension triggers this process and any attribute for an item together with the part numbers are sent to E-Business
- Oracle E-Business Suite profile options
 - INV: Default primary unit of measure
 - INV: Default Item Status

Process Integration for Change Order Release - *Best Practices*

- Item created in Agile and does not exist in E-Business:
 - The item needs to be created using template(s) in E-Business.
- Item created in Agile and exists in E-Business:
 - The item is updated with information from Agile PLM.
 - If item exists in the Master Org in E-Business, and Agile releases a change order to create the same item, the system is terminated due to error.
- Any subsequent releases of an item are sent as an update transaction and is expected that the item exists in the master org.
- Agile does not enforce revision order, E-Business does.

Process Integration for Change Order Release - *Best Practices*

- BOM component uniqueness:
 - At least one of the following restrictions must be enforced on the way BOMs are configured in Agile:
 - Component sequence number is required on the Bills of Material, AND it must be unique for each row of data
 - An item cannot occur more than once on another item's first level Bills of Material.
 - When Operation Sequence is not explicitly sent for the component row, it will be defaulted as 1 when the component row is added.
- Manufacturers:
 - Manufacturer name should already exist in E-Business.
 - Manufacturer names are not mapped via DVMs.

Process Integration for Change Order Release - *Best Practices*

- For Manufacturer Change Orders, E-Business must be configured to not require rev rollup with Change Orders.
- In order for Change Orders / BOM Line Changes to be implemented in E-Business based on effectivity dates, the auto-implement manager must be running in e-Business Suite in each of the organizations that Change Orders get interfaced to.
- BOM updates should not be sent on a Change Order when an Item is deactivated via lifecycle phase or item status change to Obsolete/Inactive.
- BOM Component Number Existence:
 - When items are first created in Agile (and not in PIM via an NPR process), you should set the Agile Smartrule to disallow unreleased items on BOMs.

Using PIM Best Practices

- Profile Option
 - If using PIM, the profile option *EGO: Enable Product Information Management Data Librarian* should be set to “Yes”
- PIM with New Item Request (NIR) Configuration
 - If PIM is enabled and NIR is configured for the Oracle E-Business Item Catalog Category, then the Item will be created as Unapproved and Engineering Item in PIM.
 - Once the item is approved in PIM, and in order to transfer it to Oracle Manufacturing, Agile should send the ENG_ITEM_FLAG as “N” for the item with the Process Integration for Change Order Release .
 - E-Business interprets this as a request for Engineering Item Transfer from PIM to Manufacturing.

Additional Resources

- Documents Available in My Oracle Support:
 - ❑ [Note 958956.1](#) - Known Issues and Workarounds for Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 2.5
 - ❑ [Note 1293061.1](#) - Known Issues and Workarounds for Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 3.1
 - ❑ [Note 956597.1](#) - Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 2.5 – Implementation Guide
 - ❑ [Note 959423.1](#) - Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 2.5 - Release Notes
 - ❑ [Note 1273866.1](#) – Agile PLM Integration Pack for Oracle E-Business Suite: Design to Release 2.5 – Extension Recommendations (also applicable to 3.1)
 - ❑ [Note 1261464.1](#) - AIA Agile PLM Integration Pack for Oracle E-Business Suite Master Support Note

* 3.1 Implementation Guide and Release Notes are available through eDelivery. Documentation has been revamped and functionality is the same as 2.5.

Additional Resources

- For More Information about our Products
 - <http://www.oracle.com/products/>
- For More Information about Education
 - <http://www.oracle.com/education/index.html>
- For More Information about Support
 - <https://support.oracle.com/CSP/ui/flash.html>
- Oracle Product Documentation:
 - <http://edelivery.oracle.com>
 - <http://www.oracle.com/technology/documentation/applications.html>

Questions

